



Bruhat Bengaluru
Mahanagara Palike

BRUHAT BANGALORE MAHANAGAR PALIKE
EXCECUTIVE ENGINEER YELAHANKA ZONE PROJECT DIVISION

Project management consultancy

PMC AND INSPECTION REPORT

NAME OF WORK: Package - 04 includes 7 Works of Rs. 582.00 Lakhs:
1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrapa layout and balaji layout and surrounding area in ward number - 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.



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1. Salient Features

- Name of Client: Bruhat Bangalore MahanagaraPalike
- Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07.2) Improvements to Roads and drains at bhadrapa layout and balaji layout and surrounding area in ward number - 083) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhuand surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in MuthurayaSwamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in KuvempuNagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.
- Name of road: 1) Improvements to Roads and drains at bhadrapa layout and balaji layout and surrounding area in ward number - 08
2) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08
- Job Code: 007-19-000106, 008-19-000034, 008-19-000035, 009-19-000030, 010-19-000011, 011-19-000288
- Name of the Agency: Executive Engineer, B.B.M.P, Byatarayanapura, Bangalore
- Name of Consultant: Transheight Consultants Pvt. Ltd.
- Work Order: BBMP/EE/BTP/WO/110/2019-20
- Tender Price: 582.00 Lakhs

2. Important events in the Work

Sl. No.	Description of Activities
1.	Removing and resetting footpath slab
2.	Earth work excavation by manual means
3.	Wet mix macadam
4.	Primer coat
5.	Bituminous macadam
6.	Tack coat
7.	Bituminous concrete
8.	Hot applied thermoplastic compound
9.	Earth work excavation for foundation of buildings
10.	Reinforced cement concrete of design mix M20
11.	Plain Cement Concrete of mix M10
12.	T.M.T. steel reinforcement for R.C.C. work
13.	Centering & Shuttering, strutting, propping etc
14.	constructing Burnt Brick masonry
15.	constructing granite/trap/basalt Size stone masonry
16.	cement plaster in single coat with cement mortar
17.	water proofing to roof slab, terraces, landscape area, podium etc
18.	Filling available excavated earth

3. Quality Control System

The Works are being executed as per the Guidelines given in the Agreement, as per the Relevant Indian Standards and under the Skilled Supervision. All the Standard Quality Control Tests of Construction materials, which have been used, have been carried out and the reports are maintained.

All the available Test Reports are enclosed here with in **Annexure I.**

4. Progress Status:

Progress Photographs are enclosed in **Annexure II.**

To,
The Executive Engineer,
Byatarayanapura Division
BBMP office, Bangalore.

"PMC & INSPECTION REPORT"

Dear Sir,

Subject: Regarding Inspection report for the below mentioned work.

- 1) Improvements to Roads and drains at bhadrapa layout and balaji layout and surrounding area in ward number – 08
- 2) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08

Item No	Description of work	Unit	Qty
1	Removing and resetting footpath slab (P.no.256,I no.37.56 of pw, P&IWTDD SR 2018/19)	Sqm	1634.13
2	KSRRB 300-1. Earth work excavation by manual means in Ordinary Soil soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications.MORTH chapter 3. No. 143/ Item No. 19.1/ PWD SR 2018-19	Cum	1447.53
3	KSRRB M400-17: Providing, laying spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying, in uniform layers with paver in sub base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH specification NO. 406,P No. 155/ Item No. 20.18/ PWD SR 2018-19	Cum	749.06

4	KSRRB 500-4: providing and applying primer coat from 7.5 to 9.8 kg and 9.8 to 12.2kg per 10 sqm for surfaces of low and medium porosity respectively over prepared surface of granular base with cut bank M.C-70 or any other bitumen mixed with diesel at 10 kg per 10 sqm heated in bitumen boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications Do- Medium Porosity MORTH chapter 5, No. 158/ Item No. 21.6/ PWD SR 2018-19	Sqm	2286.60
5	KSRRB 500-11. Providing and laying bituminous macadam on Prepared Surface with crushed Coarse aggregates as per Design mix formulae for base/binding course including loading of aggregates with F.E loader, Hot mixing of Stone aggregates and bitumen in Hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve desired density, but excluding cost of primer/Tack coat including lead, lift and cost of all materials, labour HOM of machineries complete as per Specifications. MORTH Ch 5. using 40/60 TPH capacity HMP with Mechanical paver Gr-II (50mm - 75mm) with 3.4% VG-30 bitumen. Item no:21.11.6	Cum	114.33
6	KSRRB 500-9: providing and applying tack coat on granular base such as WBM and WMM surfaces hot bitumen primed at 10 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specifications 5, No.158/ Item No. 21.9/ PWD SR 2018-19	Sqm	7467.07
7	KSRRB M500-19: providing and laying bituminous concrete 40mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem roller to achieve the desire compaction as per MORTH specification clause No. 500.9 complete In all respects as per specifications. MORTH specification 30-45mm compacted thickness (GradingII) With 6% bitumen 80/100, No. 161/ Item No. 21.22.1/ PWD SR 2018-19	Cum	298.68
9	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (Page No 181., I.No.24.15 of KPWD S.R 2018-19).	Sqm	313.04

28	Earth work excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.PWD SR 2016-17 It No.2.4 Pg. No.6	cum	332.78
29	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @320kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @0.459cum, with superplasticiser @3lts confirming to IS 9103-1999 reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications.PWD SR 2016-17, It No.4.11 Pg No.14	cum	119.87
30	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @0.46cum, with superplasticiser @3lts confirming to IS 9103-1999 reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for RCC beams, columns, roof of all sizes in foundation plinth and superstructure ground floor level for roof slabs, staircase, lintles, columns, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications.PWD SR 2016-17, It No.4.13 Pg No.14.	cum	10.33
31	Providing and laying in position Plain Cement Concrete of mix M10 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @0.465cum machine mixed, concrete laid in layers not exceeding 15 cms. thick well compacted, in foundation and plinth, cost of all materials, labour, HOM of machinery, curing complete as per specifications. PWD SR 2016-17, It No.4.2, Pg No.-13	cum	19.00
32	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening. Cutting, bending, hooking placing in position, lapping and /or welding wherever required, tying with binding wire and anchoring to the adjoining member wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour HOM of machinery complete as per specification for TMT Bars Fe 500 (PWD SR 2016-17 item No. 4.46.2, p. No. 18).	M. Ton	9.68

33	Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications.PWD SR 2016-17, It No. 4.28, Pg No.16	Sqm	76.98
34	Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness upto 200 mm including cost of all materials, labour complete as per specifications.PWD SR 2016-17, It No. 4.30, Pg No.16	Sqm	165.05
35	Providing and removing Centering & Shuttering, strutting, propping etc., for columns, pillars, piers, abutments, post and struts, square/rectangular / polygon in plan including cost of all materials, labour complete as per specifications.PWD SR 2016-17, It No. 4.32, Pg No.16	Sqm	120.30
36	Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications.PWD SR 2016-17, It No. 4.34, Pg No.17	Sqm	267.52
37	KSRB 4-6.10 :Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc., including edges including cost of all materials, labour complete as per specifications. PWD SR 2016-17, It No. 4.37, Pg No.17	Sqm	8.78
38	Providing and constructing Burnt Brick masonry with approved quality of non-modular bricks of standard size of class designation 50 (Table moulded) with cement mortar 1:6 masonry for basement and super structure including cost of materials, labour charges, scaffolding, curing complete as per specifications.PWD SR 2016-17, It No.6.6 Pg No.29	Cum	61.85
39	Providing and constructing granite/trap/basalt Size stone masonry in foundation with cement mortar 1:6 stone hammer dressed in courses not less than 20cms high, bond stones at two mtr apart in each course including cost of materials, labour curing complete as per specifications.PWD SR 2016-17. It No.5.5, Pg No.25	Cum	87.78
40	Providing and constructing granite/trap/basalt size stone masonry in super structure with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two mtr apart in each course including cost of materials, labour, curing complete as per specifications.PWD SR 2016-17. It No.5.12, Pg No.25	Cum	17.33

42	Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.PWD SR., 2016-17 It No.15.13, Pg No. 115	Sqm	90.27
43	Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specificationsPWD SR, 2016-17, It No 15.19, Pg No.116	Sqm	178.46
44	KSRB 15-3.14 Providing 12mm thick cement plaster in single coat with cement mortar 1:4 to Ceiling including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.PWD SR., 2016-17 It No.15.22, Pg No. 116	Sqm	64.43
E6	Providing & applying water proofing to roof slab, terraces, landscape area, podium etc., using modified polyurethane cures (conforming to ASTM C836-84) to give a tough elastomeric waterproof membrane on the surface. The surface shall be cleaned free from dust and other particle before usage. standards & methodology : (P.No. 267, I.No. 38.2 of PWD SR 2016-17)	Sqm	69.84
E7	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification. No. KBS 2.9.PWD SR 2016-17. It No.2.10, Pg No.7	Cum	66.56

With respect to the above subject & name of work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the bill

Thanking you,



[Handwritten signature in green ink]